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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,711	12/05/2003	Yu-Chin Lai	P02530	9939

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EXAMINER

MOORE, MARGARET G

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 01/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/728,711	Applicant(s) LAI ET AL.	
	Examiner Margaret G. Moore	Art Unit 1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 to 27 is/are pending in the application.
- 4a) Of the above claim(s) 6 to 27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 to 5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1 to 5, drawn to a prepolymer, classified in class 528, subclass 32.
- II. Claims 6 to 27, drawn to a copolymer, classified in class 526, subclass 279.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions of Group I and Group II are related as mutually exclusive species in an intermediate-final product relationship. Distinctness is proven for claims in this relationship if the intermediate product is useful to make other than the final product (MPEP § 806.04(b), 3rd paragraph), and the species are patentably distinct (MPEP § 806.04(h)). In the instant case, the intermediate product is deemed to be useful as a fiber treating agent, a glass sizing agent or as a component in a pressure sensitive adhesive and the inventions are deemed patentably distinct since there is nothing on this record to show them to be obvious variants. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions anticipated by the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

3. Because these inventions are distinct for the reasons given above and the search required for Group II is not required for Group I, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Glenn Smith on 1/20/06 a provisional election was made without traverse to prosecute the invention of Group I, claims 1 to 5. Affirmation of this election must be made by applicant in

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replying to this Office action. Claims 6 to 27 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 2 and 5 rejected under 35 U.S.C. 102(b) as being anticipated by O'Lenick, Jr. et al. '625 (herein O'Lenick).

O'Lenick teaches silicone alkoxylated esters. See the top of column 4, when "q" is 0 and both R' groups are the formula shown on lines 13 and 14. One specifically taught embodiment for R" is $-\text{CH}=\text{CH}-$. Such a copolymers meets that of claim 1 when W is O and Y is OH.

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Particularly note Reactant Example VII on column 5, which will result in the terminal groups required by the instant claims (having cis configuration). Note too the silicones on lines 10 to 15 which, when reacted, will have terminal ester groups. The Examiner refers to 5,180,843 (column 3, lines 40 to 60) as showing that the compounds in Examples 9 to 13 do, in fact, correspond to the structure on column 7, lines 10 to 15, wherein "q" is 0.

Thus for the table on column 8, the only difference between examples 23 to 27 is that they contain $\text{CH}_2\text{-CH}_2$ R' groups rather than -CH=CH- . However the fact that there is a limited selection for R" groups and that patentee specifically teaches -CH=CH- as a preferred embodiment would lead the skilled artisan to find the claimed polymer fully disclosed and anticipated by the prior art.

On the other hand, the only difference between example 7 and that claimed is the presence of "o" groups in the siloxane backbone. However in view of the fact that siloxanes having no "o" groups are specifically shown and used to prepare the silicones in O'Lenick the skilled artisan would have immediately envisioned the prepolymer of example 7 prepared with a siloxane having no "o" groups and as such this prepolymer is anticipated by the prior art.

For claim 2, this limits the number of carbon atoms in R_1 but since "n" is from 1 to 10 there can be up to 100 carbon atoms in this compound (in addition to O atoms). Thus the definition of $a+b+c$ meet this limitation. On the other hand note, for instance, the siloxane in example 9 in which $a+b+c = 0$. This will result in a polymer meeting claim 2.

9. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by O'Lenick, Jr. '269 and O'Lenick Jr. 542.

The teachings in these references are comparable to O'Lenick '625 in that they prepare the base polymers in '625 and subsequently react the terminal -OH group. The Examiner relies on the rationale detailed in paragraph 8, supra, for this rejection.

The Examiner has made rejections over these references because they

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correspond to the claimed prepolymer when Y is a residue having a carboxyl group. See for instance column 3, lines 15 to 50 of '542, which shows a prepolymer having a terminal salicylic acid group. See also column 2, lines 20 to 60, which shows a prepolymer having a terminal lactic acid group.

10. Claims 1 to 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Mueller et al.

Mueller et al. teach polysiloxane hydrogels. Particular attention is drawn to formula (B) having the dimethylsiloxane backbone shown on line 36 of column 4. Note that R3 can be COOH. This corresponds to the claimed terminal group when Y is OH. While the formula on column 4 embraces the claimed prepolymer the more specific teachings on column 7 are relied upon as anticipating the claimed prepolymer.

The bottom of column 7 refers to the terminal groups when X represents $-\text{COO}-$ or $-\text{CONR}_5-$. This corresponds to the $-\text{COW}-$ linkage in instant claim 1. The terminal groups are then the "monoacyl radicals of maleic, fumaric or itaconic acid, or the monoalkyl esters" thereof. These monoacyl radicals correspond to a terminal group having a terminal OH group corresponding to the claimed Y group. The maleic acid will form a cis configuration, the fumaric acid will form a trans configuration while the itaconic acid will result in the compound of claim 4. Since this provides a detailed explanation of terminal groups corresponding to those claimed and since one must select from only 2 different siloxane backbones, one of which meets the siloxane backbone in the claimed prepolymer, the teachings in Mueller et al. anticipate the instant claims.

11. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164

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USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

12. Claims 1 and 2 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 to 5 of copending Application No. 10/875,969. Although the conflicting claims are not identical, they are not patentably distinct from each other because in the prepolymer of '969, when Y is the reactive oligomer derived from a hydroxy reactive monomer, this will correspond to the claimed prepolymer in which Y is a residue having a reactive functional hydroxyl group.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.


13. The remaining references are cited as being of general interest. References such as Mazurek et al. and Berger et al. teach general formulas that embrace at least one of the polymers in claim 1, but neither reference is as close to the claims as the prior art cited supra. Lai et al. teach fumarate and fumaride siloxanes but specifically teach away from the claimed prepolymers. Ando et al. and Kawaguchi et al. teach fumarate siloxanes having terminal alkoxy groups, which are not within the breadth of Y. 4,717,498 teaches siloxanes having internal, rather than terminal, maleic acid groups. The Examiner acknowledges that the corresponding PCT search report indicates only "A" references.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Margaret G. Moore whose telephone number is 571-272-1090. The examiner can normally be reached on Monday to Wednesday and Friday, 10am to 4pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Margaret G. Moore
Primary Examiner
Art Unit 1712

mgm
1/20/06